

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appellant: Garry Brereton
Serial No.: 10/538,816
Filed: January 17, 2006
Group Art Unit: 3616
Examiner: Wilhelm, Timothy
Title: SUSPENSION TRAILING ARM

Mail Stop Appeal Brief- Patents
Commissioner for Patents
P.O. Box 1450
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REPLY BRIEF

Dear Sir:

This is in response to the Examiner's Answer mailed December 22, 2010. The Examiner's Answer presents some arguments that require a brief response. Additionally, the Examiner has withdrawn the rejection of claims 9 and 49-53.

ARGUMENTS

A. Obviousness of Claims 8, 12, 13 and 42-48 based on Smith et al. in view of Pierce.

The Examiner states that Smith et al. does not disclose a trailing arm that is cast or forged. The Examiner states that Pierce discloses this feature, and it would be obvious to modify the trailing arm of Smith et al. to be either cast or forged to ensure a high strength of the trailing arm. Appellant respectfully disagrees.

Claim 43 recites a suspension trailing arm includes a first cast or forged component including an arm portion that is an integral casting or forging with an axle locating formation and extending between a first portion of the axle locating formation and a chassis mounting formation. Smith, by contrast, discloses a fabricated box section arm 518 formed of plates 532, 534, 536, and 538 "rigidly

joined together, for example by welding” (column 19, lines 54-58). Inherently, an arcuate plate 544 that acts as part of the sleeve to 542 to receive the axle 524 must also be a separate component from the plates 532 to 538. In other words, the arm portion and the axle locating portion of Smith are neither cast or forged, nor are they integral.

Smith teaches an entirely different approach to the trailing arm construction to that of the present invention. Indeed, throughout the numerous embodiments shown in Smith, the teaching is consistently of the trailing arm being fabricated from multiple plates and non-integral connections to the axle. Additionally, Smith teaches the utilization of a rubber wrapper band 566 to enable the axle to articulate with respect to the beam (column 21, lines 18-23).

Pierce discloses a cast or forged first member 46 with an I-section (column 3, lines 20-30). A separate axle bracket assembly 24 is bolted to the first member 46 so to be pivotable with respect to the first portion and achieve fore-aft compliance. The assembly 24 includes arms 64 that extend upwardly and separately connect an axle 22 to the first member 46 via a bolt 60. Therefore, Pierce fails to disclose an axle locating formation that is either a casting or forging, nor is it integral with an arm portion. Furthermore, neither the axle bracket assembly 24, nor the member 46, fully encircle the axle 22.

Thus, if a person of ordinary skill in the art were to combine the disclosures of Smith and Pierce, they would not be taught all the features claimed in claim 43 because neither document discloses an axle locating formation that is integrally cast or forged with an arm.

However, the skilled person would not be provided the teaching or motivation to even try and combine the disclosures to arrive at the claimed invention. The documents offer differing and mutually incompatible layouts to achieve relative movement or compliance between axle and arm (a wrapper band between axle and sleeve in the case of Smith, and a pivotable connection in the case of Pierce). As such, the teaching of the documents is in opposite directions. The claimed invention is not obvious.

B. Obviousness of Claims 3, 10, 11 and 40 based on Smith et al. and Pierce.

Claims 3, 10, 11 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al. in view of Pierce. Neither reference discloses a thickness of a suspension trailing arm or a variable bending strength as claimed. The Examiner states that it would be obvious to make a bending strength of a trailing arm greater in certain areas or to make a thickness of a trailing arm greater in certain areas as it has been held that discovering the optimum or workable ranges involves only routine skill in the art. However, the Examiner provided no evidence of this assertion in the arguments or answer.

CONCLUSION

For the reasons set forth above, the rejection of all claims is improper and should be withdrawn. Appellant respectfully requests such an action.

Respectfully Submitted,

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